CLAIMS

1 An optical scanning device comprising a first phase structure (105) comprising a first birefringent material (203) having a first extraordinary axis and a second phase structure (106) comprising a second birefringent material (208) having a second extraordinary axis perpendicular to said first extraordinary axis, wherein the first and second phase structures have substantially the same pattern, the optical device comprising means (202, 205, 207, 210) for modifying the extraordinary refractive index of the first and the second birefringent material such that the extraordinary refractive indices of the first and the second birefringent material remain substantially equal.

2 An optical scanning device as claimed in claim 1, wherein the first and second birefringent materials are liquid crystal materials and the modifying means comprise means for applying an electric field to said liquid crystal materials.

3 An optical scanning device as claimed in claim 1, wherein the first and second phase structures form part of a same and one optical element.

4 An optical element comprising a first phase structure comprising a first birefringent material (203) having a first extraordinary axis and a second phase structure comprising a second birefringent material (208) having a second extraordinary axis perpendicular to said first extraordinary axis, wherein the first and second phase structures have substantially the same pattern, the optical element comprising electrodes (202, 205, 207, 210) between which a potential difference can be applied so as to modify the extraordinary refractive indices of the first and the second birefringent material.